

THE CLAIMS

What is claimed is:

- 5 1. A tactilely readable timepiece, comprising:
a clock device configured for keeping time;
a display comprising:
a display area,
at least one movable portion within the display and movable with
respect thereto to form at least one displayed character that is recognizable by touch by a
10 user, the displayed character having a tactilely sensible shape that is independent of a system
of dots; and
an actuator operably associating the clock device to the movable portion for
displacing and positioning the movable portion to form the displayed character depending on
the current time kept by the clock device.
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2. The timepiece of claim 1, wherein the displayed character is
alphanumeric or geometrical.
3. The timepiece of claim 1, wherein the movable portion comprises a
20 plurality of movably portions, and the actuator is configured for cooperatively positioning
the movable portions for creating the displayed character.
4. The timepiece of claim 3, wherein the actuator is configured for
changing the elevation of the movable portions with respect to the display area to form the
25 displayed character.
5. The timepiece of claim 4, wherein the actuator is configured for
elevating the movable portions above the display area to form the displayed character.
- 30 6. The timepiece of claim 5, wherein the actuator is configured for
depressing the movable portion below the display area to form the displayed character.
7. The timepiece of claim 4, wherein the movable portions are generally
pie shaped and are arranged generally around a central point, such that the height of at least

one of the movable portions is changed with respect to the rest to indicate the general analog position corresponding to the time kept on the clock device.

8. The timepiece of claim 3, wherein the displayed character comprises
5 one of different characters representing a preselected times kept by the clock device.

9. The timepiece of claim 3, wherein the displayed character is
configured to be identified by a user by the orientation thereof, and has discrete positions in
the display area.
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10. The timepiece of claim 1, wherein the displayed character is
configured to be identified by a user by shape.

11. A tactilely readable timepiece, comprising:
15 a clock device configured for keeping time;
a display comprising:
a display area,
a plurality of movable portions within the display are and movable
with respect thereto to form at least one displayed character that is recognizable by touch by
20 a user, the displayed character having a tactilely sensible shape that is independent of a
coded system of dots, wherein the displayed character comprises at least one of different
characters to represent a preselected time kept by the clock device, each of the different
characters having a shape that is sufficiently large to be determined by touch; and
an actuator operably associating the clock device to the movable portions for
25 displacing and positioning the movable portions to form the displayed character as the at
least one of the different characters corresponding to the current time kept by the clock
device.

12. The timepiece of claim 11, wherein the different characters represent
30 at least each of the hours in a twelve hour period.

13. The timepiece of claim 11, wherein the different characters comprise
up to ten different characters.

14. The timepiece of claim 11, wherein the different characters represent at fractions of an hour.

15. The timepiece of claim 11, wherein the movable portions comprise elongated segments that form the displayed character.

16. The timepiece of claim 15, wherein the movable portions are arranged as an at least seven-segment display.

17. The timepiece of claim 11, wherein the different characters comprise Arabic numbers.

18. The timepiece of claim 11, wherein the different numbers comprise geometric shapes that are distinguishable by finger touch.

19. The timepiece of claim 18, wherein the geometric shapes each has less than eight sides.

20. The timepiece of claim 11, wherein at least some of the displayed character is displayed on substantially a same location in the display area.

21. The timepiece of claim 11, wherein the different characters comprise a single digit or shape.

22. The timepiece of claim 11, further comprising an indicator portion that is movable by the actuator between at least two tactilely sensible positions to indicate the time kept on the clock device in combination with the displayed character.

23. The timepiece of claim 22, wherein the indicator comprises a plurality of indicators, each with a position that in combination with the displayed character indicates the time kept on the clock device.

24. The timepiece of claim 23, wherein the plurality of indicators are disposed surrounding the display area.

25. The timepiece of claim 22, wherein the indicator is movable by the actuator along a path to more precisely indicate the time kept on the clock device in combination with the displayed character.

5 26 The timepiece of claim 11, wherein at least two of the movable portions that form one of the different characters are sufficiently close such that any spacing therebetween is substantially undetectable by touch by a human finger pad.

10 27. A wristwatch comprising:
the timepiece of claim 11; and
a band configured for mounting the timepiece to a user's wrist.